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## The Asbestos Regulations 1931: A Licence to Kill?

NICK WIKELEY\*

### INTRODUCTION

Asbestos has rightly been described as the 'grand-daddy of all occupational killers'.<sup>1</sup> It is also very much a twentieth-century phenomenon, although the history of asbestos exploitation has been traced back as far as c. 2500 BC.<sup>2</sup> Litigation in the American courts has revealed how the asbestos industry systematically suppressed findings by medical and scientific researchers which pointed to the carcinogenicity of asbestos.<sup>3</sup> The consequent emphasis in the literature on corporate concealment has meant that the role of the state in regulating the use of asbestos in the workplace has not been explored so fully. The analysis in this article will draw on previously unpublished Home Office and TUC papers, held respectively at the Public Record Office and in the Modern Records Centre at the University of Warwick.<sup>4</sup> These reveal the course of negotiations between the Home Office (then responsible for the Factory Department), the leading asbestos manufacturers, and the TUC, which led up to the Asbestos Industry Regulations 1931.<sup>5</sup> The 1931 regulations represented the first legislative response in any industrialized country to the hazard posed by asbestos and were designed to lay down elementary dust control measures in the asbestos textile industry. The article will show how these standards were largely agreed between the Home Office and the manufacturers before the trade unions were consulted, with literally fatal consequences for thousands of workers during the following years.

The events leading up to the 1931 regulations are therefore not merely of historical interest, but remain significant in two ways. First, they provide contemporary lessons for the regulation of potentially hazardous substances in both the workplace and the general environment. Secondly, the failings of the early controls continue to have a very real impact today. The 1931 regulations applied to British industry right up until 1970,

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cases are characterized by their long latency periods. Asbestosis (a form of lung fibrosis) typically takes between fifteen and twenty-five years to manifest itself. The latency period for lung cancer associated with asbestos exposure is usually between fifteen and thirty-five years. Where mesothelioma is concerned, onset is generally some thirty to forty years after exposure, although it may take as long as fifty years.<sup>7</sup>

There are serious methodological difficulties in arriving at an accurate picture of the extent of asbestos-related disease.<sup>8</sup> It should therefore be borne in mind that the official statistics almost certainly underestimate the true incidence of such disease.<sup>9</sup> In 1989, the latest year for which figures are available, there were 145 death certificates for asbestosis (excluding those also mentioning mesothelioma), while the total for mesothelioma was 853.<sup>10</sup> The Health and Safety Executive has estimated that the current number of lung cancer deaths attributable to past asbestos exposure is 'well over 1,000 per year'.<sup>11</sup> It follows that every year, even on the most conservative estimates, there are over 2,000 deaths because of asbestos exposure, most of which are as a result of exposure during the period when the 1931 regulations were in force.

#### THE MEREWETHER PRICE REPORT 1930

The turning point in the development of medical and scientific knowledge about asbestosis is widely acknowledged to be the Merewether Price report, published in 1930.<sup>12</sup> The files of the Home Office for that period, held at the Public Record Office, indicate that officials were aware of the contemporary reports of a link between asbestos and lung fibrosis. The first mention of this in the official records is to be found in a Home Office minute signed by 'GB' (presumably Sir Gerald Bellhouse, then H.M. Chief Inspector of Factories) and dated 18 April 1928:

The question of danger of health through inhalation from asbestos dust has been before the Department on several occasions. Dr Collis carried out an investigation in 1911 but his enquiry gave only negative results. More recently there have been two cases of suspected fibrosis . . . The Medical Inspectors are following this matter up, and will examine the workers with a view to elucidating the danger (if any) attending this industry.<sup>13</sup>

Merewether and Price were then commissioned to prepare a study of the state of health of individuals working with asbestos. In order to keep the study manageable, Merewether and Price concentrated on employees in the textile trade who were only exposed to asbestos. In all, they examined 363 workers out of an estimated total workforce of 2,200, excluding those who had been engaged in other dusty occupations. The sample was deliberately weighted with employees with more extensive employment histories in order to obtain a full picture of the progression of disease. Just over a quarter of the workers definitely had asbestosis, and the general rate of incidence in the workplace, adjusting for the weighting in the sample, was estimated to be rather less than one in eight.<sup>14</sup>

produced, and the speed with which it developed, were directly proportional to the intensity of the exposure experienced. In particular, they found that a group of workers known as spinners took longer on average to develop fibrosis, and seemed to be exposed to lower concentrations of dust. They therefore suggested that the spinners' level of exposure should be regarded as the 'dust datum', and that higher concentrations of dust should be reduced by the application of dust-suppression measures. This recommendation formed a fundamental part of the thinking behind the subsequent safety regulations.

Once the Merewether Price report became available, officials began almost immediately to initiate follow-up action. Dr. J.C. Bridge, H.M. Senior Medical Inspector of Factories, forwarded a copy of the report to Sir Gerald Bellhouse on 17 October 1929. Shortly afterwards, Merewether and Price were asked to prepare a further report concentrating on the best practical means for providing ventilation in asbestos textile factories.<sup>15</sup>

The Home Office then began discussions with the principal asbestos manufacturers on how best to establish controls. The initial contact was made by D.R. Wilson, H.M. Deputy Chief Inspector of Factories, who wrote to Samuel Turner of Turner Bros. Asbestos Ltd. requesting an interview with him on a planned visit to Rochdale in the early summer of 1930.<sup>16</sup> Following this meeting, Wilson chaired an informal conference attended by representatives from all the main asbestos manufacturers which was held at the Home Office on 8 July 1930.<sup>17</sup> In the notes of this conference Wilson is quoted as stating that the Merewether Price report:

seemed . . . to disclose a disquietening situation and it would be a necessary duty for the Department to recommend to the Secretary of State that Regulations be issued to deal with the Asbestos Industry as a dangerous trade.<sup>18</sup>

Wilson accordingly proposed that a sub-committee be established to examine recommendations for safety precautions. This partly conciliatory approach, but one that was backed up by the threat of unilateral action, seemed to have placed the manufacturers in something of a dilemma. There was a divergence of opinion amongst the industry representatives as to whether such a body should be set up, resulting in the civil servants' withdrawing from the meeting and the trade members conferring privately. On reconvening, the Cape Asbestos delegate, speaking for all those present, announced that they had decided to agree to the formation of such a sub-committee. This body consisted of two members of the Factory Department and three from the trade group.<sup>19</sup> Presumably the manufacturers took the view – rightly, as it turned out – that their interests would be better protected if they co-operated with the department.

The conclusions of this sub-committee were published in 1931.<sup>20</sup> Its report detailed a total of twenty-five agreements for improving conditions in asbestos factories, relying heavily on the finding of Merewether and Price that there was a 'dust datum'. The company representatives stated that they were prepared to accede to only the minimum level of improvements which were



explicity described as being 'aimed at interfering as little as possible with existing working methods or lay-out of premises.'<sup>21</sup> The Chief Inspector of Factories sounded a warning note in his preface to the report, pointing out that the recommendations were:

necessarily based on one important assumption, namely, the existence of a critical limit of dust concentration below which workers may be employed without injury to health. As the Committee rightly observe, the only working basis that can be adopted at present is a finding in the previous Report which suggests that the conditions in flyer spinning carried on without exhaust may be regarded as the 'dust datum'; it is however desirable to emphasise that this limit is clearly provisional and is subject to alteration in the light of further medical experience.<sup>22</sup>

Unfortunately, it was another forty years before such a reassessment took place.

Legislative action followed on two fronts. First of all, asbestos was recognized under the workmen's compensation legislation for the first time, as Parliament extended the special arrangements for silicosis to those engaged in certain narrowly defined manufacturing processes involving asbestos.<sup>23</sup> Secondly, the Home Office issued the Asbestos Industry Regulations 1931.<sup>24</sup>

### THE ASBESTOS INDUSTRY REGULATIONS 1931

The Asbestos Industry Regulations 1931 essentially put into a statutory form elements of the agreements reached by the joint working party and of the recommendations made by Merewether and Price. These regulations applied to all factories and workshops in which any of six specific manufacturing processes were carried on. Part I of the regulations imposed various duties on factory occupiers and employers, such as the provision of ventilation equipment and breathing apparatuses, and prohibited hand-cleaning of machines. Consequential duties were imposed on all those employed in such workplaces by Part II of the regulations. The final version of the regulations was the result of a series of negotiations between the Home Office and the manufacturers, and subsequently between the Home Office and the TUC.

#### 1. Consultation with the Manufacturers

In February 1931 Wilson sent the manufacturers a copy of the report on dust suppression. A second conference between the department and the trade was then held at the Home Office on 17 March 1931 to consider an early draft of the regulations. At this meeting the industry members raised a number of objections to the duties which were to be imposed by the regulations.<sup>25</sup> First, they took 'strong exception' to the requirement that full records be kept of the mandatory six-month testing of all ventilating equipment for examination by a Factory Inspector. It was said that this would be an unwarranted burden on industry. Secondly, the manufacturers objected to the obligation to provide

stripping and cleaning on the basis that it was 'not customary for respirators to be worn' for such work. Thirdly, 'strong exception' was taken again to the prohibition on the employment of young persons in specified asbestos manufacturing processes. One trade delegate complained that this would interfere with the apprenticeship system.

The Factory Department officials present at the conference appear, from the tone of subsequent official correspondence, to have been not unsympathetic to these concerns. For example, Bridge described the argument against the prohibition of the use of young persons as 'a fair one and should be favourably considered'.<sup>26</sup> At a late stage in the drafting process a proviso was inserted in the relevant clause to the effect that it did not affect any young person already employed when the regulations came into force.<sup>27</sup> In other respects, however, relatively few concessions were made to meet the employers' concerns.

#### 2. Consultation with the TUC

Consultation with workers' representatives took place at a later stage. The reason for this appears to have been uncertainty within the Factory Department as to whether there were any specific trade unions operating in the asbestos trade.<sup>28</sup> In April 1931 Wilson formally submitted the regulations to the Home Office for approval. It was only at this point that discussions with the unions were arranged.

The first formal contact was made when Robert Bannatyne of the Home Office wrote to the General Secretary of the TUC on 24 April 1931, enclosing a copy of the sub-committee's report and inviting observations.<sup>29</sup> Three days later, the Secretary of the TUC's Social Insurance Department, Mr J.L. Smyth, replied, thanking Bannatyne for his letter and adding that the TUC assumed 'that you have sent copies of these documents to the Unions concerned.' This prompted a telephone call from the Home Office to Smyth, admitting that the papers had not been sent to any unions 'as they really did not know which Unions were concerned, but they were leaving the matter to us to deal with'.<sup>30</sup>

In May 1931 Wilson forwarded a copy of the draft regulations to the TUC with a request for comments. In itself, this suggests a genuine attempt by the Home Office to canvass the TUC's views. On the other hand, the Home Office's previous meetings with the employers had effectively set the agenda which the regulations would follow. Thereafter, the TUC were only able to make improvements at the margins, rather than on fundamental issues. Certainly, a recurring theme in the discussions that followed was a reluctance on the part of the Home Office to compel the employers to accept safety standards beyond the bare minimum necessary to meet the risks demonstrated by the Merewether Price report.

The individual unions involved in the asbestos industry were not consulted until 1 July 1931, when Smyth sent a copy of the draft regulations to the Transport and General Workers Union (TGWU), the National Union of



problems. In particular, the collapse of the economy with the Great Depression had a devastating impact on the Lancashire cotton trade. In 1930 Turner Bros. themselves closed down their cotton mill in Rochdale. As the AWA reported, 'Loss of business in almost every market has been most noticeable. 1930 was a very bad year, but 1931 has been worse.'<sup>41</sup> The AWA's annual report for 1931/32 makes no mention of its work on the asbestos regulations. Instead, most of the report is devoted to a discussion of the 'more-loom-to-a-weaver' crisis, provoked by the cotton manufacturers' attempt to cut costs by forcing the weavers to accept a complement of eight looms each instead of the usual four.<sup>42</sup>

Similarly, the AWA, TGWU, and NUGMW had other grave problems with which to contend. The National Government's decision in 1931 to cut unemployment insurance and introduce the household means test inevitably consumed the time and resources of all the unions.<sup>43</sup> The AWA itself was also involved in expensive litigation, unsuccessfully challenging in the Court of Appeal the Lancashire mill-owners' practice of making deductions from wages for faulty work.<sup>44</sup> In the light of all these factors, regulation of the asbestos trade was simply not a priority in the trade union world of the early 1930s.

### THE FAILURE OF THE 1931 REGULATIONS

In 1930, and for many years thereafter, the medical and scientific establishment took the view that the dangers of asbestos exposure were fully appreciated. As a result, concentrations of dust below the 'dust datum' came to be regarded as levels of safe exposure on the basis that an industrial activity is safe until it is proven hazardous. The degree of false optimism that accompanied the 1931 regulations was reflected in a report in a contemporary medical journal. The authors stated that:

the picture of pulmonary asbestosis is that of pneumoconiosis occurring in a factory in which few precautions had been taken to protect the workers from a danger, the gravity of which was not realized. Happily these conditions are now a thing of the past and elaborate precautions have been taken to protect the workers. There is thus good reason to believe that the disease is now under control, [although, because of the latency period] it seems probable that workers exposed to the dust under the old conditions will continue to present themselves for examination for some time to come.<sup>45</sup>

In retrospect, it has become clear that the 1931 regulations had three inherent weaknesses in terms of adequate health and safety protection.<sup>46</sup> First, they were based on the premise, derived from the Merewether Price report, that the only risk to health posed by asbestos was asbestosis caused by heavy asbestos exposure above the 'dust datum'.<sup>47</sup> This took no account of the carcinogenic properties of asbestos, despite Tage's warnings.

Secondly, the 1931 regulations only applied to those working in asbestos

factories, and so failed to protect the risk of exposure. Their narrow scope was a direct consequence of the occupational cohort used in the Merewether Price report, which failed to examine the risks to workers in other trades.<sup>48</sup> The omission of other workplaces was also partly a response to what were perceived as insuperable practical considerations, as has been seen with the case of the shipyards. The regulations were also rapidly overtaken by new applications for asbestos, such as the development of sprayed asbestos in 1931.<sup>49</sup> Workers in the shipbuilding and construction industries faced very high levels of exposure in the years that followed. Indeed, in some cases work was carried out in premises which were entirely outside the scope of the Factory Act.<sup>50</sup>

Thirdly, the regulations made no attempt to control any wider public health risks. Indeed, where dust extraction units were installed, they may simply have spread the risk of disease to those living in the immediate vicinity. There is a body of scientific evidence which suggests that a small proportion of mesothelioma deaths may be due to such environmental exposure to asbestos.<sup>51</sup>

If these inherent weaknesses were not enough, subsequent litigation in the civil courts has shown that the 1931 regulations were widely ignored in practice. The long-term interests of safety were too often sacrificed to the economic imperative of meeting short-term production targets.<sup>52</sup> It is well-known that the traditional approach of the Factory Inspectorate has been to seek compliance through advice and guidance to employers, rather than prosecution through the courts.<sup>53</sup> It is not possible to establish how many prosecutions were brought for breaches of the 1931 regulations, but such evidence as there is suggests that prosecutions were the exception rather than the rule. Certainly, between 1964 and 1970 only two firms were prosecuted, on four separate counts, with total fines amounting to £220.<sup>54</sup>

In parenthesis, it is certainly arguable that the regulatory standards governing the use of asbestos in the workplace today are probably about the best that can be achieved short of a total ban on its use.<sup>55</sup> The number of workers at risk of contracting asbestos-related disease at some point in the future as a result of current workplace exposure has been significantly reduced,<sup>56</sup> owing to both the introduction of tighter controls and the limited number of workers exposed to asbestos products since the 1970s. One American study has projected just 536 future deaths from cancer attributable to occupational exposure to asbestos occurring between 1985 and 2000. This compares with estimates of total numbers of deaths in the order of 145,000 to 233,000 for earlier sixteen-year periods of exposure between 1940 and 1979.<sup>57</sup>

### CONCLUSION

The history of asbestos demonstrates how effective regulation of occupational health and safety depends in large part upon the control of information about industrial hazards. In the decades after 1931 the asbestos industry effectively